

REMARKS

The Examiner's comments together with the cited references have been carefully studied. Favorable reconsideration in view of the foregoing amendments and following remarks is respectfully requested.

Relying on 35 U.S.C. 102(b), the Examiner rejected claims 1-6, 8-12, 16, 19-20, and 23 as being anticipated by Nohr (US 2002/149656). Regarding independent claims 1 and 19-20, the Examiner states that Nohr discloses an ink jet recording element (paragraph 26) containing a substrate (paragraph 16) and colloidal particles having a charged or chargeable surface (paragraph 13) associated with two water soluble alternating layers of oppositely charged organic polymers having ionized or ionisable groups on the surface of the colloidal particles and another organic polymer having ionized or ionisable groups the same as that of the surface of the colloidal particles (paragraph 13), and that Nohr discloses a coating containing the structure shown in Fig. 2 that was subsequently applied to paper and the resulting coating was allowed to dry (paragraph 141).

Applicants respectfully traverse the Examiner's rejection, and request reconsideration, as regarding claim 1, referenced paragraph 26 of Nohr does not refer to an inkjet recording element as alleged by the Examiner, but rather to charged polymer-colorant coated nanoparticles (which may be employed in an inkjet ink as disclosed elsewhere in Nohr); referenced paragraph 16 does not refer to a substrate of an inkjet recording element as implied by the Examiner (but rather references that recording mediums of the invention may be applied to a substrate to impart color to the substrate); and while Fig. 2 of Nohr may depict a colloidal particle with two alternating layers of opposite charges, referenced paragraph 141 of Nohr does not disclose a coating composition containing such a structure as shown in Fig. 2 that was subsequently applied to a paper and allowed to dry (rather, paragraph 141 (Example 30) describes use of silica particles which were coated with a single layer of polyvinylpyrrolidone, rather than particles additionally coated with a polymer-colorant as in Fig. 2). It is further noted that Example 30 of Nohr uses polyvinylpyrrolidone which is neutral in solution, being not protonated at the pH, in similarity with polyethylene oxide. Polyvinylpyrrolidone is different, for example, from

polyethyleneimine, as used in the Applicant's specification, in that it does not develop a charge on adsorption. For clarification, the reduction in zeta potential seen here is due to the presence of the thick adsorbed layer (see difference in particle sizes in example 30 of from 10nm to 25 nm) and is in no way indicative of the polymer being charged. While Nohr employs use of the term "recording medium" at various points in the specification, it is clear that such term is intended to refer to a printing ink used in a recording process, rather than an inkjet recording element comprising an image receiving layer as in the present claimed invention, as such "recording medium" of Nohr includes colorant and a liquid vehicle (see, e.g., claim 1). Thus, it is clear the Examiner has misinterpreted the Nohr reference, and that such reference clearly does not anticipate the present claimed invention. Reconsideration of this rejection is accordingly respectfully requested.

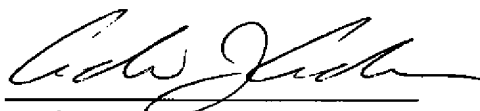
Claims 6-7, 13-16, and 24-27 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Nohr. It is initially respectfully urged that the various modifications to the actual teachings of Nohr proposed by the Examiner as being "obvious" do not overcome the basic deficiencies of the Nohr reference as discussed above with respect to the anticipation rejection. Further regarding Claims 13 and 14, while the Examiner "takes the position" that gelatin is commonly used in ink compositions and the teachings of Nohr with respect to positively, negative charged or uncharged polymers represent broad classes of polymer, there is no support for the Examiner's bare assertion that it would have been obvious to use such a polyampholyte copolymer in Nohr as Nohr itself expressly refers to only positive or negative charged polymers for use in forming the alternating layers of polymer-colorant for the nanoparticles used in the inks thereof. Further regarding Claims 15 and 25, while it may be obvious to vary the polymer weight to particle volume ratio for the nanoparticles of Nohr in order to control light fastness, use of water soluble dyes, and control color density as referenced in paragraph [0034] for such colored nanoparticles used in ink formulations, such colorant optimizations do not relate to the presently claimed inkjet recording element. Further regarding Claims 26 and 27, the Examiner argues that with the teachings of Nohr it would have been obvious to a person of ordinary skill in the art at the time of the invention to apply the surface

treated nanoparticles in a digital ink jet process. However, while Nohr may disclose that the nanoparticle formulations thereof may be incorporated into a variety of liquid mediums to form colorant compositions, including inks in a digital ink jet process, such disclosure does not teach or suggest the present claimed invention, which requires use of an inkjet recording element comprising specified formulation, which specified inkjet recording element is itself printed upon with an inkjet composition (i.e., inkjet ink).

Claims 17-18 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Nohr and Landry-Coltrain (2002/0094418). The Examiner takes the position that it is common in the art to use highly absorbent materials singularly or in combination such as polyvinyl alcohol (PVA), polyvinylacetate, styrene-acrylics, styrene-butadiene copolymers and mordants in image receiving layers (see Landry-Coltrain Paragraph 19, 20 and 24), and that it would have been obvious to a person of ordinary skill in the art to include binders and mordants in the “image receiving layer of Nohr” as Landry-Coltrain clearly teach that these are common absorbent materials. It is again respectfully urged that the modifications to the actual teachings of Nohr proposed by the Examiner as being “obvious” do not overcome the basic deficiencies of the Nohr reference as discussed above with respect to the anticipation rejection, as Nohr simply does not disclose use of the described charged polymer-colorant coated nanoparticles in an image-receiving layer of an inkjet recording element. Thus, there simply is no relevant “image receiving layer of Nohr” as referenced by the Examiner, as the only described charged-polymer treated nanoparticles are charged polymer-colorant coated nanoparticles employed in inks rather than an image-receiving layer. Reconsideration of this rejection is accordingly respectfully requested.

In view of the foregoing remarks and amendment, the claims are now deemed allowable and such favorable action is courteously solicited. Should the Examiner consider that additional amendments are necessary to place the application in condition for allowance, the favor is requested of a telephone call to the undersigned counsel for the purpose of discussing such amendments.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read 'Andrew J. Anderson', written over a horizontal line.

Andrew J. Anderson
Attorney for Applicant(s)
Registration No. 33,564

Andrew J. Anderson:clb
Rochester, NY 14650
Telephone: (585) 722-9662
Facsimile: (585) 477-1148

If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.